Applicant(s): Hartmut Sauer Attorney Docket No.: 68001-006US1 Serial No. 10/553,145 Client Ref. No.: 204/04008US

Filed August 14, 2006

Page 3 of 10

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

(Currently Amended) Use of an An article whose comprising: 1. a surface exhibits having a composite material in full or in parts, wherein the composite material consisting of includes a non-metallic substrate containing at least one polymer[[,]] and a metallic layer present deposited thereon and deposited without applying an external current, having an adhesive strength of at least 4 N/mm², and the article is configured to be an [[as]] electronic structural part.

- 2. (Currently Amended) Use according to The article of claim 1 characterised in that the standard deviation of the adhesive strength at six different measured value points distributed over the surface of the composite material is maximum 25 % of the arithmetic mean.
- (Currently Amended) Use according to The article of claim 1 3. characterised in that
 - the surface of the article is not chemically pretreated before the application a) of the metallic layer deposited without applying an electric current; and
 - the metallic layer is not applied by thermal spraying, CVD, PVD or laser b) treatment.
- (Currently Amended) Use according to The article of claim 1 4. characterised in that the non-metallic substrate is the surface of the article.
- 5. (Currently Amended) Use according to The article of claim 1 characterised in that the non-metallic substrate is not the surface of the article.

Applicant(s): Hartmut Sauer Attorney Docket No.: 68001-006US1 Serial No. 10/553,145 Client Ref. No.: 204/04008US

Filed August 14, 2006 Page

4 of 10

6. (Currently Amended) Use according to The article of claim 1 characterised in that the boundary present between the non-metallic substrate and the metallic layer exhibits a roughness with an R_z value of maximum 35 μm .

- (Currently Amended) Use according to The article of claim 1 7. characterised in that the boundary present between the non-metallic substrate and the metallic layer exhibits a roughness with an R_{a} value of maximum 5 $\mu\text{m}.$
- 8. (Currently Amended) Use according to The article of claim 1 characterised in that the non-metallic substrate contains at least one fibre-reinforced polymer, in particular a polymer reinforced with carbon fibre and the diameter of the fibre is less than 10 µm.
- 9. (Currently Amended) Use according to claim 1 The article of claim 8 characterised in that the non-metallic substrate contains at least one fibre-reinforced polymer, in particular is a polymer reinforced with glass fibre and the diameter of the fibre is more than 10 µm.
- 10. (Currently Amended) Use according to The article of claim 9 characterised in that the boundary present between the non-metallic substrate and the metallic layer exhibits a roughness with an R_{a} value of maximum 10 $\mu\text{m}.$
- 11. (Currently Amended) Use according to The article of claim 9 characterised in that the boundary present between the non-metallic substrate and the metallic layer exhibits a roughness with an R_z value of maximum 100 μm .
- 12. (Currently Amended) Use according to The article of claim 1 characterised in that the polymer is selected from the group consisting of polyamide, polyvinyl chloride, polystyrene, epoxy resin, polyether ether ketone, polyoxymethylene, polyformaldehyde, polyacetal, polyurethane, polyether imide, polyphenyl sulphone, polyphenylene sulphide, polyarylamide, polycarbonate and polyimide.

Applicant(s):

Hartmut Sauer

Serial No.

10/553,145

Filed

August 14, 2006

Page : 5 of 10

13. (Currently Amended) Use according to The article of claim 12 characterised in that the metallic layer exhibits an adhesive strength of at least 12 N/mm².

Attorney Docket No.: 68001-006US1

Client Ref. No.: 204/04008US

- 14. (Currently Amended) Use according to The article of claim 1 characterised in that the non-metallic substrate is polypropylene or polytetrafluoroethylene[[,]].
- 15. (Currently Amended) Use according to The article of claim 1 characterised in that the standard deviation of the adhesive strength amounts to maximum 25 %, in particular maximum 15 %, of the arithmetic mean.
- 16. (Currently Amended) Use according to The article of claim 1 characterised in that the metal layer deposited without electric current is a metal alloy or metal dispersion layer.
- 17. (Currently Amended) Use according to The article of claim 1 characterised in that the metal layer deposited without external current is a copper, nickel or gold layer.
- 18. (Currently Amended) Use according to claim 1 one of the preceding claims The article of claim 16 characterised in that the metal dispersion layer deposited without external current is a copper, nickel or gold layer with embedded non-metallic particles.
- 19. (Currently Amended) Use according to The article of claim 18 characterised in that the non-metallic particles exhibit a hardness of more than 1,500 HV and are selected from the group consisting of silicon carbide, corundum, diamond and tetraboron carbide.
- 20. (Currently Amended) Use according to The article of claim 18 characterised in that the non-metallic particles exhibit friction-reducing properties and are selected from the group consisting of polytetrafluoroethylene, molybdenum sulphide, cubic boron nitride and tin sulphide.

Applicant(s):

Hartmut Sauer

Serial No.

10/553,145

Filed Page August 14, 2006 6 of 10 Attorney Docket No.: 68001-006US1 Client Ref. No.: 204/04008US

- 21. (Currently Amended) Use according to The article of claim 1 characterised in that, onto the metallic layer deposited without external current, a layer of aluminium, titanium or their alloys is applied whose surface is anodically oxidised or ceramics-treated.
- 22. (Currently Amended) Use according to The article of claim 21 characterised in that one or several metallic layers are also arranged between the metallic layer deposited without external current and the layer of aluminium, titanium or their alloys.
- 23. (Currently Amended) Use according to The article of claim 21 characterised in that the surface of the article is a ceramic oxide layer of aluminium, titanium or their alloys, which [[layer]] is coloured black by foreign ion embedments.
- 24. (Currently Amended) Use according to The article of claim 1 wherein the article is configured to be a [[as]] condenser, sonic field condenser, high frequency structural part, antenna, antenna housing, sonic rider or microwave hollow-cored conductor or circuit breaker surface.
- 25. (New) The article of claim 8, wherein the fibre-reinforced polymer is a polymer reinforced with carbon fibre whose diameter is less than 10 μm .
- 26 (New) The article of claim 15, wherein the standard deviation of the adhesive strength amounts to maximum 15 % of the arithmetic mean.